

TAMPA BAY ESTUARY PROGRAM



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**Difference
Between
1950 and 1990
Seagrass
Cover**

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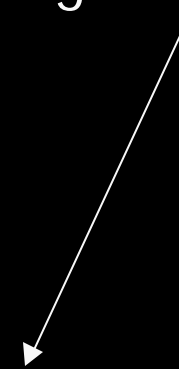
TBEP NITROGEN MANAGEMENT STRATEGY PARADIGM

TN Load → Chlorophyll → Light Attenuation



Seagrass Growth
& Reproduction

Seagrass Light
Requirement



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TAMPA BAY NITROGEN MANAGEMENT GOAL

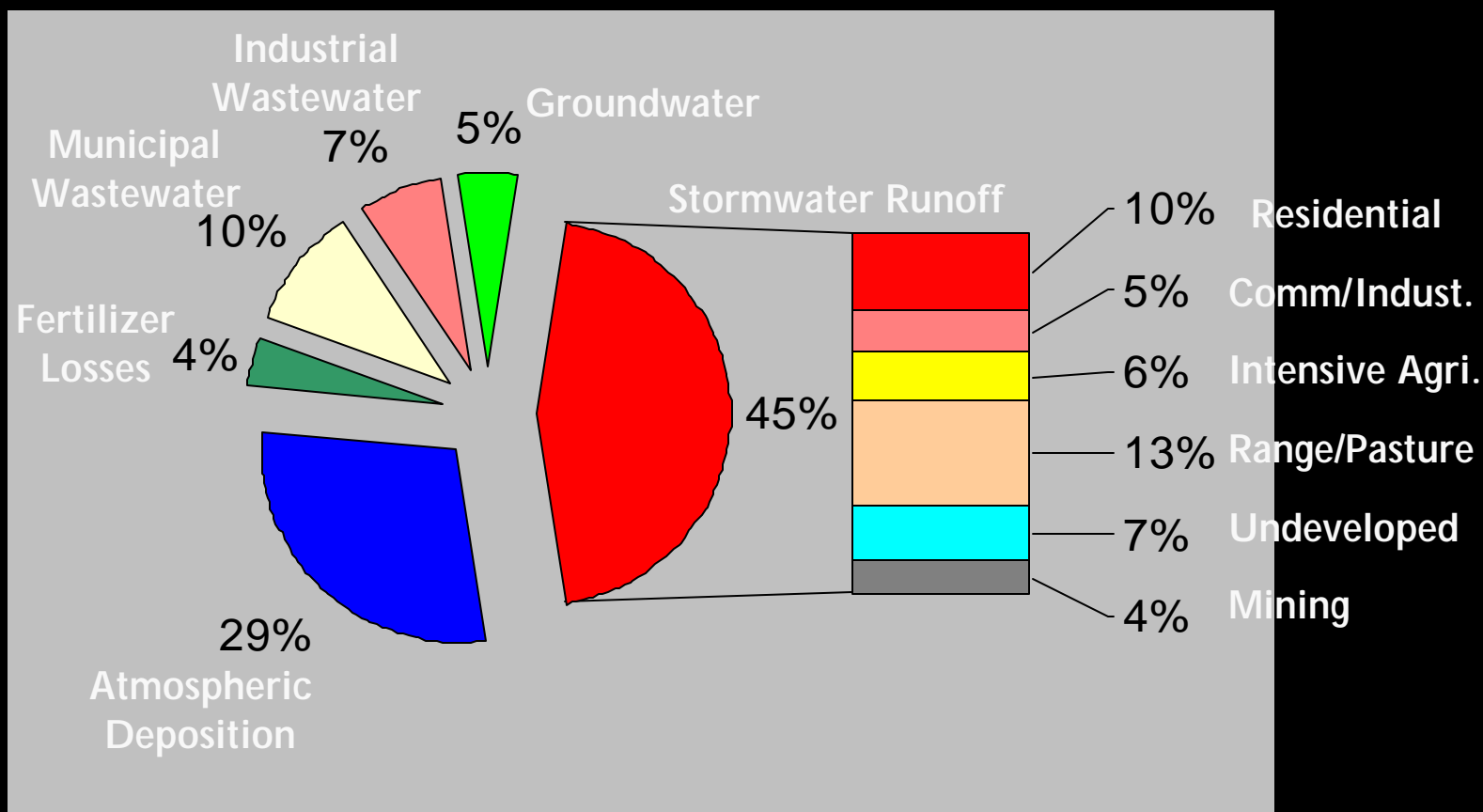
"Hold the line" at nitrogen loading estimated for 1992-1994. To compensate for expected growth, reduce or preclude additional nitrogen loading by 17 tons per year (starting in 1995).

*Year 2000 Reduction Goal: 84 tons/year
This Reduction Goal has now been extended
through 2004.*

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TOTAL NITROGEN LOADING





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PUBLIC PARTNERS:

U.S. Environmental Protection Agency
Florida Department of Environmental Protection
Southwest Florida Water Management District
Environmental Protection Commission of
Hillsborough County
Florida Wildlife Conservation Commission
Tampa Bay Regional Planning Council
Hillsborough County
Pinellas County
Manatee County
City of Clearwater
City of Tampa
City of St. Petersburg
U.S. Army Corps of Engineers
Tampa Port Authority
Agricultural Extension Services

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PRIVATE PARTNERS:

Florida Phosphate Council
Eastern Terminals
Florida Power and Light Company
Florida Strawberry Growers
IMC-Phosphate
CSX Transportation
CF Industries, Inc.
Cargill Fertilizer, Inc.
Pakhoed Dry Bulk Terminals
Tampa Electric Company

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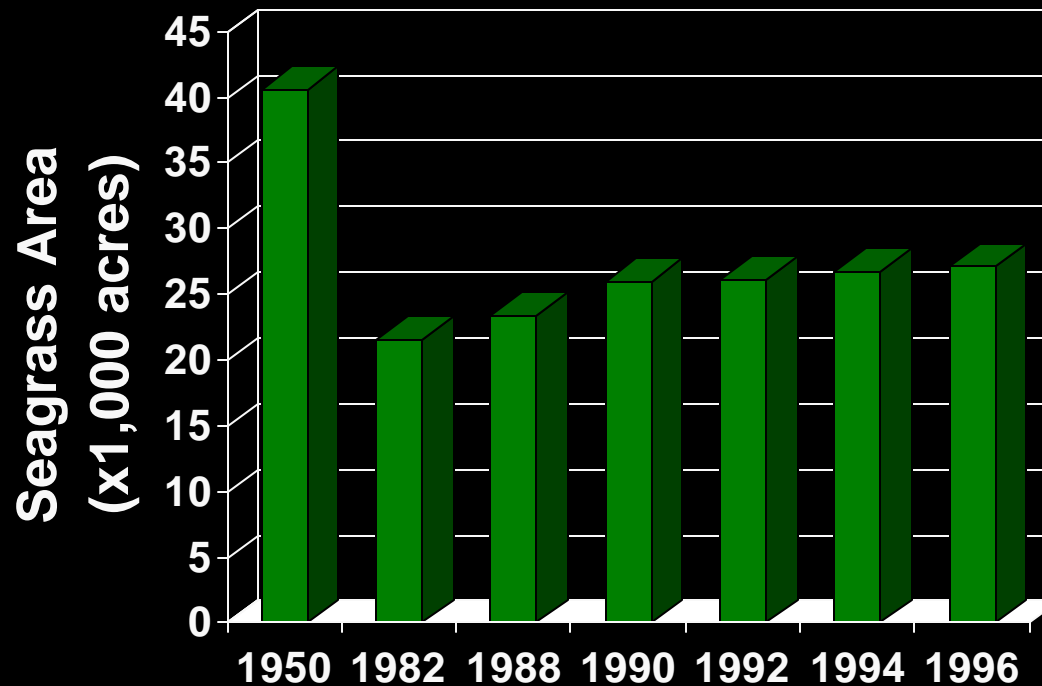
NITROGEN MANAGEMENT CONSORTIUM ACTION PLAN HIGHLIGHTS

- Ø Total of 105 projects by local governments, agencies and industry
- Ø 134 tons per year reduction in N-loading expected by 2000
- Ø Exceeds 1995-1999 reduction goal by 60 percent
- Ø 95% of projects address nonpoint sources and account for 71% of total nitrogen load reduction
- Ø 50% of total load reduction achieved through public sector projects, and 50% by industry

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TRACKING PROGRESS TOWARDS TBEP'S GOALS



GOAL: Recover an additional 12,350 acres of seagrass over 1992 levels, while preserving the bay's existing 25,600 acres.

STATUS: Since 1988, seagrass acreage is increasing at about 300 acres per year. At this rate, the goal will be reached in 30-40 years.

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TAMPA BAY NITROGEN MANAGEMENT CONSORTIUM A COOPERATIVE APPROACH

- Ø Originally non-regulatory, voluntary participation
- Ø Consortium members pledge to exercise their best efforts to collectively meet nitrogen management goals
- Ø Regulatory agency partners agree to exercise reasonable flexibility within the framework of their rules in the processing of permit applications for projects included in the Consortium Action Plan
- Ø In 1998, technical basis and implementation by Consortium adopted by EPA as the TMDL for nitrogen for Tampa Bay

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TAMPA BAY NITROGEN MANAGEMENT APPROACH ONGOING AND UPCOMING ISSUES

- ∅ Going from a voluntary reduction program to a TMDL: Technical and philosophical issues
- ∅ Perception that “we’ve done the easy things”: How to encourage continued participation (public and private) as reductions become more difficult (and expensive) to obtain
- ∅ How and will the NMC be able to meet TMDL requirements, since this approach is “outside the box”
- ∅ Atmospheric deposition: Significant technical issues remain
- ∅ Public involvement: Needed in the future? And why ?